



[3410-11- P]

## **DEPARTMENT OF AGRICULTURE**

### **Forest Service**

#### **Shasta-Trinity National Forest; California; Elk Late-Successional Reserve**

#### **Enhancement Project**

**AGENCY:** Forest Service, USDA.

**ACTION:** Notice of intent to prepare an environmental impact statement.

**SUMMARY:** The Forest Service will prepare an environmental impact statement (EIS) to evaluate and disclose the predicted effects of the Elk Late-Successional Reserve Enhancement project, which would treat natural stands and plantations on approximately 2,930 acres to reduce the current and future risk of large-scale disturbance events within early, mid and late-successional habitat within the Elk Flat Late-Successional Reserve and nearby stands. Additional benefits from risk reduction treatments include increasing the resilience and promoting continued development and connectivity of late-successional forest habitat within the Elk Flat Late-Successional Reserve. Objectives include improving forest health; increasing resiliency to natural events such as drought, insect and disease infestations and high severity wildfire; and restoring unique habitats. Forest stand treatments would be completed using commercial and non-commercial thinning and regeneration prescriptions. Fuels reduction would be completed using mechanical and hand methods and prescribed fire. Proposed road actions include maintenance and reconstruction of National Forest System roads, construction of temporary roads to complete project activities, and closure and decommissioning of National Forest System roads and existing routes. The project is located in Siskiyou

County, California on the McCloud Ranger District of the Shasta McCloud Management Unit, Shasta-Trinity National Forest. The project's legal location is: Township 40 North, Range 1 West, Sections 4 and 5; and Township 41 North, Range 1 West, Sections 27 to 34, Mt. Diablo Meridian. The project area is approximately nine miles northeast of the town of McCloud, California, and 70 miles northeast of Redding, California.

**DATES:** Submit comments concerning the proposed action on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** Send written comments to Christine Jordan, USDA Forest Service, Shasta McCloud Management Unit, P. O. Box 1620, McCloud, California 96057.

Electronic comments and other data may be submitted via e-mail to [comments-pacificsw-shasta-trinity-mtshasta-mccloud@fs.fed.us](mailto:comments-pacificsw-shasta-trinity-mtshasta-mccloud@fs.fed.us) or via facsimile to (530) 964-2938.

**FOR FURTHER INFORMATION CONTACT:** Christine Jordan, Natural Resources Planner, at (530) 964-3771.

Individuals who use telecommunication devices for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 between 8 a.m. and 8 p.m., Eastern Time, Monday through Friday.

**SUPPLEMENTARY INFORMATION:**

Purpose and Need for Action

The primary purpose of the Elk Late-Successional Reserve Enhancement project is to reduce the current and future risk of large-scale disturbance events within early, mid and late-successional habitat within the Elk Flat Late-Successional Reserve (LSR) and nearby stands. This is consistent with Objectives I and III that guide the development and application of treatments within the Forest's Late-Successional Reserves (Forest-

wide Late-Successional Reserve Assessment, LSRA). We recognize that natural disturbance is an important process within late-successional forest ecosystems, but both human and natural processes have altered the disturbance regime within the Elk Flat LSR such that without action, further stand and structural composition loss would result from the combination of continued overstocking and density-related mortality, root disease, insect attacks and predicted lethal fire effects. Approximately 15 percent of the Elk Flat LSR is currently comprised of large pockets (10 to 80 acres) of standing dead trees that are a current and future threat to both the surrounding habitat, due to increasing fuel loads, and members of the public visiting and recreating in the project area. Smaller mortality pockets range from groups of 5 to 10 trees up to ½-acre, primarily in the ponderosa pine component, with additional root disease-related mortality occurring in white fir stands. Additional benefits from risk reduction treatments include increasing the resilience and promoting continued development and connectivity of late-successional forest habitat within the Elk Flat LSR (LSRA Objectives II and IV). The Elk Flat LSR, designated as RC-360 in the LSRA, comprises approximately 90 percent of the project area, with the remaining 10 percent in matrix allocation.

Within the dry forested landscape of the California Cascades Province where the project area is located, fire suppression has resulted in significant increases in accumulated ground and understory fuels, while also making forested stands much more vulnerable to insects and disease impacts due to resultant overstocking. Because of the fire suppression history and lack of a natural fire regime in the project area, approximately 80 percent of the forested stands in the Elk Flat LSR are highly to extremely dense, particularly in relation to the survivability of pine. Current stand

conditions reflect an increase in a shade-tolerant understory and midstory, composed primarily of white fir and incense cedar. Without low intensity fire or other disturbance, stand densities have increased as trees have continued to grow larger, with slowed tree growth as stands approach and reach a maximum carrying capacity. For most species, density-related tree mortality increases as stands reach and exceed 60 percent of a maximum stand density index, or SDI. An exception to this 60 percent standard is ponderosa pine. Research has repeatedly observed widespread mortality in ponderosa pine stands resulting from pine beetle outbreaks at densities below what had been considered 60 percent of maximum SDI. Stand exams completed in 2007 within the natural stands proposed for treatment measured densities above an SDI of 230, with many exceeding an SDI of 365. Additionally, older plantations (>40 years) are near or above an SDI of 365. Based on the relationship with bark beetles, as ponderosa pine stands reach and exceed an SDI of 230 (or 60 percent of the SDI of 365), pine mortality from beetle outbreaks is increasingly likely.

Dense stocking also stresses trees as they compete for limited nutrients and moisture, especially during dry conditions, and it is often the larger, older trees that are most susceptible to this stress. It is important to note that the density-related mortality is not limited to the understory trees in the project area; the large dominant and pre-dominant ponderosa pine trees have also died, or are dying. This is reflected in the existing conditions of large mortality pockets described above, which are located in both the natural stands and plantations within the project area. Reducing tree densities in the lower and mid-level canopy layers with thinning can reduce fire behavior, improving both direct suppression efforts and reducing the potential for large-scale habitat loss from

a running crown fire. Underburning after thinning can reduce surface and maintain ladder fuels at levels that do not allow for ground fire to transition into the upper canopy.

Without action, the density-related mortality, further exacerbated by drought, disease and future insect attacks will continue to spread throughout the project area, contributing to more standing and dead fuels and increasing the risk of a stand-replacing fire. Current ground fuel loadings in the Elk Flat LSR range from 5 to 10 tons per acre and are expected to increase to 20 plus tons per acre in the mixed conifer stands. Ground fuel loading is approximately 10 to 15 tons per acre in the ponderosa pine-dominated stands, where there are high levels of existing and ongoing mortality, and is expected to increase to 35 to 100 plus tons per acre when these dead and dying trees fall. Forest Health specialists have also assessed the LSR for the presence of black stain and Heterobasidion root disease, locating it in several proposed treatment units.

Additional project benefits and objectives include increasing the resilience and promoting continued development and connectivity of late-successional forest habitat within the Elk Flat LSR and restoring forest stand and meadow conditions on adjacent matrix lands to allow for a natural fire regime. Through risk reduction and habitat restoration treatments, the potential for high severity fire effects on adjacent private lands and within Wildland Urban Interface associated with the Mt. Shasta Forest subdivision would be reduced, stream channel and Riparian Reserve function along Ash and Swamp Creeks would be improved and hardwood species diversity would be increased.

#### Proposed Action

The following acreages and distances are approximate. The proposed action would thin natural stands ranging from 60 to 120 years of age on 1,520 acres and 10 to 40

year old plantations on 680 acres. These treatment areas will also include radial thinning around legacy pine to protect this stand component and regeneration and group selection in existing mortality and root disease pockets. Removal of encroaching conifers, predominantly ponderosa pine, to restore meadow conditions in Elk Flat is proposed on 730 acres with follow-up underburning. Hardwoods, including aspen and California black oak, would be released to increase hardwood species diversity across the project area.

Within all treatment units, surface and activity generated fuels would be treated with a combination of machine piling and burning in areas with heavier mortality, hand piling in sensitive areas as needed, lop and scatter, mastication and/or underburning (or any combination thereof) to meet the desired condition for fuel objectives. The entire project area is proposed for underburning after initial thinning treatments are completed. Underburning the entire project area would reduce the need to construct control lines, with the exception of private property boundaries and where control lines are needed to protect resources. While existing roads would be used as control lines as needed, fire would be allowed to cross unit boundaries and creep into adjacent treated and untreated stands within the project area. Where resource protection is required, such as to retain large down logs, within sensitive Riparian Reserve areas, or near cultural sites or plant populations, line may be constructed in accordance with the developed resource protection measures.

The proposal includes road reconstruction on four miles of National Forest System roads to improve drainage and reduce erosion impacts. Closure and decommissioning of 13.5 miles of System roads and unauthorized routes is proposed to

reduce impacts to wildlife connectivity, stream channels and floodplain function.

Approximately two miles of temporary roads, which would be decommissioned after use, may be required to complete project activities. No new National Forest System roads would be constructed.

Approximately 120 landings up to 0.75-acre in size (some landing areas in heavy mortality zones may be one acre or more in size) would be located within or near unit boundaries. Landings and skid trails would be rehabilitated when no longer needed for the project.

Project implementation is currently proposed for completion under a stewardship contract. Proposed underburning activities and the site preparation of group selection areas, planting and monitoring is expected to be completed by Forest Service staff and/or service contracts. Contracts may take anywhere from one to five years from award to completion. Proposed road closures and decommissioning would occur upon completion of project activities. While the entire project area is a priority for treatment to slow the progression of existing mortality and loss of late-successional habitat, priority treatment areas have been identified. They include those areas of large standing dead material, the older plantations that are densely stocked, units with known black stain and heterobasidion root disease pockets and natural stands that contain larger pockets of mortality.

Approximately 90 percent of the project area is within Late-Successional Reserve allocation where a minimum of 10 percent of each thinned unit would remain unthinned to retain processes and conditions such as thermal and visual cover, natural suppression and mortality, small trees, natural size differentiation and undisturbed debris. In addition

to the ten percent un-thinned areas, approximately 380 acres of natural stands within the Elk Flat LSR have been excluded from thinning treatments as field review either identified that they are not currently at risk, or to maintain current late-successional habitat conditions for the northern spotted owl and northern goshawk. The latter stands will remain at high stocking densities where fire hazard and density-related mortality will remain high while continuing to function as habitat for these species. This is one element of an overall spatial and temporal strategy to provide habitat and address forest change over time in the advent of disturbance events and is consistent with Recovery Action 10 of the Revised Recovery Plan for the Northern Spotted Owl. The remaining 10 percent of project area is within matrix allocation with a commercial wood products emphasis, including the majority of Elk Flat meadow. There are approximately 280 acres of Riparian Reserves associated with intermittent and ephemeral streams within the project area; overlapping both LSR and matrix lands.

Thinning prescriptions were specifically developed to reduce the risk of losing late-successional habitat, increase conifer species composition and diversity in plantation areas and natural stands to increase resilience to disease and stocking pressure, treat black stain and/or heterobasidion root diseases and reduce the risk of future mortality areas. Within natural stand units, existing mortality pockets of pine and fir may be removed to create openings or be retained to reserve snag habitat and future coarse woody debris for wildlife. Retention/removal areas will be dependent on the objectives for the specific treatment unit, safety considerations of the public and operations and meeting fuel load objectives.

The proposed action is the result of field reviews, data acquisition and analysis



including reviews and use of best available science by resource specialists on the project Interdisciplinary Team. Coordination and consultation with Tribes, the United States Fish and Wildlife Service, the Regional Water Quality Control Board, and collaboration with local watershed and restoration groups and adjacent landowners has been ongoing and will continue. The proposed action was guided by direction and objectives embodied in the Northwest Forest Plan, the Forest Plan, the Forest-wide Late-Successional Reserve Assessment and recommendations in the McCloud Flats Ecosystem Analysis. It is designed to be consistent with the Aquatic Conservation Strategy objectives and the Revised Recovery Plan for the Northern Spotted Owl. It incorporates guidance from the National Fire Plan, the Forest's Fire Management Plan and the Forest's Record of Decision for Motorized Travel Management. A project consistency review with the Regional Ecosystem Office for the specific proposed thinning treatments and resultant stand conditions may be required.

The project Interdisciplinary Team developed Resource Protection Measures common to all action alternatives to minimize or eliminate potential environmental effects while achieving the desired condition. Development was guided by Forest Plan direction as well as other applicable law, regulation and policy, project-specific objectives and resource concerns identified by resource specialists. These measures complement the project design criteria developed as part of the proposed action, including species and age class retention preferences, microsite thinning and fuels treatment modifications in suitable habitat for late-successional species and within Riparian Reserves and cultural resource protections. Best management practices for maintaining, protecting and monitoring water quality and soils will also be utilized.

## Responsible Official

J. Sharon Heywood, Forest Supervisor, Shasta-Trinity National Forest.

## Nature of Decision To Be Made

The Forest Supervisor will decide whether to implement the proposed action, take an alternative action that meets the purpose and need, or take no action.

## Permits or Licenses Required

A permit would be required from the State of California prior to burning piles. The appropriate regulatory agencies will be consulted regarding national or state required permits associated with roads used during project implementation. All required permits will be obtained prior to implementation.

## Scoping Process

The project is included in the Shasta-Trinity National Forest's quarterly schedule of proposed actions (SOPA). Detailed information on the proposed action, including maps, that will aid in informing comments will be available on the Forest web site at

[http://www.fs.fed.us/nepa/nepa\\_project\\_exp.php?project=31312](http://www.fs.fed.us/nepa/nepa_project_exp.php?project=31312). Scoping notices will be published in the Redding Record Searchlight and the Mount Shasta Herald. This notice of intent initiates the scoping process, which guides the development of issues

(cause-effect relationships that highlight effects or unintended consequences), alternatives and analysis for the environmental impact statement. It is important that reviewers provide their comments at such times and in such a manner that they are useful to identifying issues, developing alternatives, conducting resource analysis and preparing the environmental impact statement. Therefore, comments should be provided prior to the close of the 30-day comment period and should clearly articulate the reviewer's concerns.

Please include the following information with your comments: your name, address and telephone number, the project name: Elk Late-Successional Reserve Enhancement project and site-specific comments about the proposed action, along with supporting information you believe will help identify issues, develop alternatives or predict environmental effects of the proposal. The most useful comments provide new information or describe unwanted environmental effects potentially caused by the proposed action. If you reference scientific literature in your comments, you must provide a copy of the entire cited reference and include rationale as to how you feel it is pertinent to the Elk Late-Successional Reserve Enhancement project.

A public information meeting will be held on March 5, 2013 from 6:30 p.m. to 8:30 p.m. at the McCloud Ranger Station conference room, located at 2019 Forest Road in McCloud, California. At this meeting, members of the project Interdisciplinary Team will present information on the purpose and need, existing conditions and the developed proposed action to meet the desired conditions in the project area. Written comments may be submitted at this meeting in addition to submitting them via mail and electronically as described in the ADDRESSES section above. Comments received in response to this solicitation, including names and addresses of those who comment, will become part of the public record for this proposed action.

\_\_\_\_\_ February 14, 2013 (Date)

J. SHARON HEYWOOD

Forest Supervisor

